

A SHORT
DESCRIPTION
OF
CASTLETON,
IN
DERBYSHIRE;
ITS NATURAL CURIOSITIES,
AND
MINERAL PRODUCTIONS.

By J. M. HEDINGER.

Semper Scientiæ juventur.

FOURTH EDITION.

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DEDICATION.

TO HER GRACE

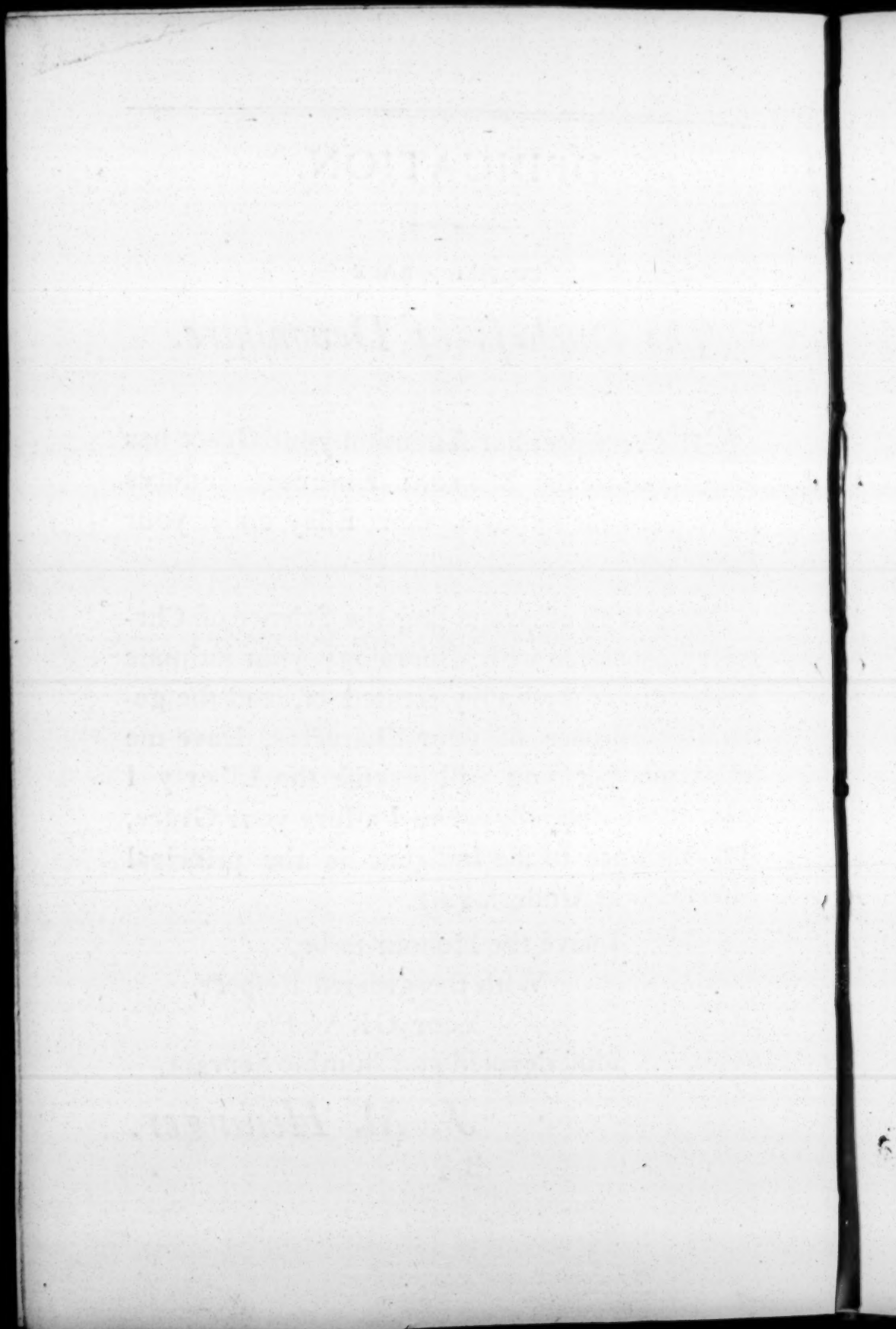
The Duchefs of Devonshire.

THE very peculiar Attention your Grace has long shewn to the MINERAL KINGDOM, induces me to place the following short Essay under your Patronage.

Your Wish of promoting the Science of Chemistry, connected with Mineralogy, your intimate Knowledge of the Valley treated of, and the general Beneficence of your Character, leave me little doubt but you will excuse the Liberty I take, more especially when I assure your Grace, that Assistance to the Indigent is the principal Motive to the Undertaking.

I have the Honour to be,
With the greatest Respect,
Your GRACE's
Most devoted and humble Servant,

J. M. Hedinger.



PREFACE.

AT this Period, when Mineralogy forms the Study equally of the Gentleman and the Artist, the following short Account of a Neighbourhood explored by Men of Science will, I trust, prove acceptable to that part of the Public who visit Derbyshire; a County where Mineralogy may most certainly be better understood than any other in the Kingdom, from the different Minerals it abounds with, the Variety of its Strata, and their singular exposed Situations; as it will be read generally by those of liberal Minds, I leave it to explain itself. My principal Wish is to be in any degree useful to the Traveller, and to assure the Public, that Castleton is one of the most healthful and interesting Villages
in

in the Kingdom ; its Fertility so much surpasses the Neighbourhood, its Produce of every Necessary of Life so abundant, and its Air so pure and wholesome, that it may truly be called the Garden of the Peak.

Any Advantage arising from the Sale of this Publication is intended for the Benefit of an industrious working Miner, as a Testimony of the Estimation a grateful Traveller retains for his Attention, good Manners, and Civility, during his stay at Castleton.

A SHORT DESCRIPTION

OF

CASTLETON.

THE approach to *Castleton* by the Winding Gate, commonly called the *Winnets*, is down a very steep hill, a mile in length, and rendered passable by the serpentine direction of the road.

Here Nature presents herself in her rudest forms: Down the road the prospect is bounded by the rugged rocks projecting in the most romantic manner, bare and sterile. On each side these tremendous mountains are many hundred feet high: some steep, overhanging, and in various forms, as if separated by a convulsion of nature. These mountains are composed of Lime-stone,
full

full of marine exuviae. The parts which retain their primitive form are the steep rocks, and those which overhang, where the decomposition (from the atmosphere) cannot remain. Those parts which are more horizontal, and where the decomposed Limestone can remain, are extremely productive of short grass, and afford a most excellent pasture for sheep.

While the traveller is meditating on his safety, and anxiously wishing for his arrival at the bottom of this declivity, he is most agreeably relieved by the sudden view of the valley: the lofty mountains no longer confine the sight, but a beautiful, picturesque and fertile valley, of four miles in length, appears encircled by a chain of mountains. Here, traveller, stop and collect thyself! View this fertile valley as one of the greatest gifts of Providence, who has bestowed on the inhabitants of this place all the climate can produce.— This valley is well watered, the rivulets produce the finest trout, and the land is very productive.

It is my intention to give a short description of this place, its mineral productions, &c. which nature

ture has rendered singular. I shall not enter into minute details on any subject, but what may prove amusing to the traveller, and instructive to the scientific ; and will, I hope, be the means of making this healthful place more generally resorted to, and its natural curiosities more noticed.

In the valley is the village of *Castleton*, which takes its name from the castle on the hill ; also the villages of *Hope*, and *Brough*. The mountains to the north are composed of Grit-stone and Shale, those to the south are Lime-stone : Its waters and springs are numerous, and are particularly pellucid and agreeable.

I now return to the approach of this village, and shall endeavour to give a just description of objects as they strike the traveller, in so impressive a manner as to cause a source of enquiry within himself. In coming down the before-mentioned road, the *Winnets*, the Traveller perceives *Mam Tor*, or the *Shivering Mountain*, on the left hand, rearing its lofty head above the rest, and of a singular form ; its height is full 1300 feet above the level of the Valley. The perpendicular appearance

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of the face of this mountain will cause some enquiry in the mind of every intelligent observer. Its history is interesting.

The stratum of this mount is Shale and Gritstone. The Shale, so subject to decompose by the action of the atmosphere, has been the cause of one part of it separating from the other, by which means the valley below it has been covered for a very considerable distance. At the foot of this mountain, before it separated, were ploughed fields, trees, and buildings, which, by its separation from the present remaining part, were all overwhelmed for the distance of half a mile; and now every day proves the truth of the assertion, as in mines near its foot, at the depth of 100 yards, trees have been found entire, the situation of which clearly prove they have existed in the valley, or on the side of the mountain before its separation. It is commonly called the *Shivering Mountain*; the reason is, after long frosts, heavy gales of wind, rain, &c. large quantities decompose and fall from its original stratum, which greatly increases the mass below: the substance sometimes falls in such quantities as to be heard and felt at *Castleton*.

On

On the summit of this almost perpendicular mountain is a spring of fine water, and near the top of it appears an entrenchment or boundary line, probably cut by the ancients. The Shale of this mountain is much impregnated with Vitriol of Iron, and the Grit-stone is composed with Mica, which serves to indicate it to be of the primitive origin.

At the foot of *Mam Tor* and near it to the south is the famous mine, called *Odin*, a rake or perpendicular vein of Lead Ore, worked horizontally more than a mile. The top of the vein is in the Shale, but the Ore is generally in the Lime-stone. This mine receives its name from the Saxons, who formerly worked in it, and most of the mineral terms used here are of Saxon origin. The traveller who wishes to gratify his curiosity, by going through the works of this mine, so instructive in natural history from its situation, will reap much information by enquiring at *Brown's* for a miner who works in it, and whose name is *Samuel Needham*. For his attention and civilities I mention his name, in hopes that it may be of service to him, and
that

that the Traveller may reap information without imposition.

The Lead Ore produced here is Potter's Ore, and yields about three ounces of silver to the ton of lead, but the quality of the Ore differs in different parts of the mine. This mine produces fine Calcareous Crystallizations, Blende, Barites, crystallized Fluor Spar, Sulphuret of Iron, Manganese, &c.

The mountain opposite the *Oden* mine, and to the south, reaches to the *Winnetts*, and forms the mountains on the left hand, as you approach this place. It commences near *Mam Tor*, at a small distance south of *Oden*, and is composed of very different substances, viz. Limestone, full of marine exuviae; it indicates, in a very satisfactory manner, violent convulsions of nature. In this rock, (so interesting to the naturalist) is found the beautiful Fluor Spar, commonly called Blue John.— This gem of nature is peculiar to this place, and found on this mountain only, in mines worked alone for it. The superb ornaments made of it, are living testimonies of its unrivalled beauty. The massy crystallizations, the tints of colour
from

from the Topaz to the richest Amethis and Ruby, are beautifully displayed in sportive veins, that form the most agreeable festoons ; the sudden contrast at once astonishes and surprises the beholder.

The manufactory for these beauties* of the mineral kingdom is carried on by *Brown and Co.* of *Derby*, to whom I am much obliged for their attention, in shewing me the whole of their extensive works, and for the great service they rendered me, in giving me a general description of the mineral kingdom of that county. They have invented a new method of polishing and working these stones by lathes, worked by a water-wheel, § 30 feet diameter, by which means the beauty of the stone is shewn to a much superior advantage, than by the methods

* The greatest Assemblage of which may be seen at their Warehouse, No. 5, Tavistock-Street, Covent-Garden, London ; and at Castleton, on the same Terms as at their Manufactory.

§ 'Tis worthy of notice, this machinery (the only one of the kind,) was the original mill which was erected by Sir T. LOME, for the throwing of filk at Derby.

methods practised on a smaller scale ; and I am convinced that so long as natural beauty is admired, these elegant ornaments will continue to be introduced into the most magnificent apartments, and amply repay the ingenuity of their patrons for their distinguished ability and merit, in bringing forward a manufactory new to every other part of the world.

But it is not my intention to deviate from my plan, farther than by informing the stranger of the best markets for the productions peculiar to the place I describe. Opposite the mountain before described, and on the right-hand side of the road, is a public-house, situated at the entrance of the *Navigation Mine*, so called on account of its waters being collected, so as to float boats to convey the Ore, and otherwise render the work less laborious. This mine was originally driven for Lead Ore, in a north and south direction, to cut across the general run of veins in this county, which are east and west. The hope of gain encouraged the adventurers to proceed, until so little Ore was got as to render it not worth working. Its natural curiosities are as follows.

First,

First, you are introduced by your guide (who is a very civil and attentive man) down an arch 106 steps, when you arrive at the water (which is about three feet deep) and forms the horizontal section of the mine. Here you get into the boats, which are perfectly safe, and are put in motion by pushing wooden pegs in the roof six feet asunder. Thus you are navigated thro' various caverns, until you arrive at the grand cavern, called the *Devil's Hall*, where the water forms a lake: you are here 600 feet below the surface of the earth: the height of this wonderful cavern has not been explored. On your left hand is a strong wall, with a water-gate in it, through which the water falls into a tremendous abyfs. The fall is about 90 feet, and the depth of the abyfs is about 320 feet standing water. It is worthy of notice, that during the time this mine was worked, the refuse was thrown down this abyfs to the amount of 20 tons per day, for four or five years, and it has not in the least been perceived to fill up, as its depth by the plumb continues the same. This may be accounted for by supposing the bottom of the abyfs to have communications with others in different directions.

There

There are several other caverns of much greater extent, but very difficult of access: Should the curiosity of the traveller lead him to visit them, he may be accommodated with a guide and necessaries, by applying to the landlord at the house. This mine is situated in the Lime-stone, its produce was not interesting, but it is a specimen of good workmanship.

From these subterraneous places of retreat, you are conducted back, when you will fail not to heartily welcome the approach of day, and relate the situation you have been in with mirth, pleasure, and astonishment. From this you proceed about a quarter of a mile down the road to *Castleton*, and at the inn there you will be sure to find an excellent larder, good wine, and good accommodations.

Here the guide for *Peak's Hole* offers his service to you; and now, reader, be assured you are going to see a *Grand Wonder of Nature*. You are conducted about 50 yards from the Inn, and then meet with the water which has its source from the rocks adjoining *Peak's Hole*. You then proceed
along

along the side of the rivulet, and cross it by a small bridge; soon afterwards you enter the fissure or separation of the rock, at the end of which is the cavern. On either side as you proceed up the bank, your guide shews you veins in the Lime-stone, which run perpendicular, and contain Lead Ore. One has been cut out, and appears as a fissure on the left hand. The perpendicular range of the rocks before you, and on each side, strike the mind solemnly grand: the height of that on the left is more than 250 feet. The whole is Lime-stone, full of marine materials. The entrance of the cavern next appears in view, and the mind will now be engaged in contemplating the awful structure of this grand and natural piece of architecture.—View the abutment* on the left, 20 feet below the road on which you stand, the springing of the arch, the arch itself, and you will say—nothing but an arch could support the incalculable weight of the incumbent strata!!

The natural appearance of the entrance into this
D wonder

* The rock is stratified in beds of different thickness, which gives it something of the appearance of masonry.

wonder of nature is hid on the right by the butts of the poor inhabitants, who you see carry on a manufactory for small cord, twine, &c.

The span of the arch is 120 feet, and its height from the left abutment above 70 feet. The length of the first cavern is 180 feet: In it you are shewn several Stalactites,* which your guide calls *Petrified Waters*, and by many romantic names, as *Fitch of Bacon*, &c. Near the end of the first cavern, and where you are accommodated with candles, you see on your right hand a rock detached, many tons weight, which probably fell from the roof at the period which form'd the subterraneous mansion.

From this rock you proceed (each person being provided with a candle) and soon approach a small door;

* Stalactite, vulgarly and erroneously called Water-icle, Petrified Water, &c. is, an accumulation of fine calcareous earth, which the water in filtering through the stratum is loaded with, each drop leaving behind it a portion of the earth it was saturated with, which by attraction and the cementing quality forms a substance, which from a molicula is increased to a Stalactite.

door; here the distant light appearing from the extreme of the cavern has a most singular effect, the whole assuming a stupendous view of a conclave. Now the passage becomes narrow and low; you then proceed stooping* until you come to a cavern or hole above the head, shaped something like a bell, which your guide calls the *Bell-bouse*, from it resembling that form. Thence passing along you are shewed a line on the side of the rock, to which height the water rises in very heavy rains. Continuing to proceed stooping, you arrive at the first water, on which there is a boat: the water is about two feet deep. Here the cavern has a confined appearance, and the strata seems much dislocated. Your guide walks into the water, and directs you to lie down in the boat, (in which there is not the smallest danger) and in that posture he ferries you through a small aperture, just sufficient for the boat to pass, and lands you in a cavern more stupendous than the first. Here you stop until your guide ferries over the whole

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* Here permit me to warn the visitors not to alter that position too soon, for fear of hurting the head against the rock above.

of the party. The extreme length of this subterranean hall is about 250 feet, the width 200, and the height various, in some places 120 feet. On examining this wonder of nature, a small part is only seen even with an immense number of candles ; the whole is formed in a stratum of **Lime-stone**, which apparently has undergone violent concussions of nature.

Leaving this cavern you soon arrive at another water, which is much smaller than the first, over this you are carried by your guide with ease and safety. Being landed on the other side, you soon arrive at an aperture where water is always filtering down: this your guide calls *Roger Rain's House*: From this you continue to the Chancel, where you are suddenly accosted by a choir of voices from a gallery above, at the height of 60 feet: The illumination is novel and pretty, and the effect of the singing is grand. Here are many detached pieces of rocks, and the roof appears rent and broken all over ; the Stalactites formed in various parts glitter with the lights, and have a very romantic appearance.

From

From the chancel you proceed to a fissure called by your guide the *Devil's Cellar*; from which you descend gradually 150 feet, and at length arrive at the Half-way house, as the guide calls it: here is a fine little stream of pellucid water. Passing on you proceed through three pretty formed arches by the side of a little stream of water, which you cross, the roof assuming a more regular segment of a circle, until you arrive where the roof again assumes the form of a bell, and is from that called *Tom of Lincoln*. Onward you proceed, and at length soon reach the extremity of this truly *Grand and Wonderful Subterraneous Mansion of Nature*, and are above 2250 feet from the entrance. The water here clearly proves other subterraneous communications, as the calcareous stones found in it are much rounded by attrition.

You now return, and are saluted with the effect of a *Blast** (a term of the miners,) the explosion of

*In mining where the rock is so hard as not to be cut with a pick, they work a hole with a steel borer and hammer, and when it is of sufficient depth, they put gun-powder in it, ram it close, and fire it off, which breaks off much of the rock, and answers the intended purpose.

of which is grand, and for a while (from surprize) staggers the senses.

The return of day-light, so pleasing after the subterraneous visit, is heartily welcomed by all, and here, where you deliver up the remaining bits of your candles, the appearance of day-light has the strongest effect.

Your guide now conducts you back to the Inn, where you will be refreshed by a good dinner and excellent wines, having been engaged about three quarters of an hour in visiting this stupendous work of nature. At the Inn you have a view of a venerable building on an eminence, called the *Castle*, which is in a ruinous condition ; no certain account is known when it was built, or by whom, or for what purpose ; probably by the Saxons, as a residence for the mine-master, when they resided in the town, and worked the mines here. Its situation is uncommonly singular ; the west end stands on the top, and close to the brink of the high perpendicular rock on your left hand, at the entrance of *Peak's Hole*. The east and south compartments are built on the edge of perpendicular rocks,

rocks, which form a fissure called the *Cave*; the Castle fronts the north, and the road to it is up the steep hill before you, being inaccessible in every other direction. The building is in a ruinous state, has no peculiar marks of grandeur or elegance; it seems to have occupied a considerable space, and the eminence on which it stands is Lime-stone.

The town of *Castleton* has no particular marks of grandeur. The *Saxons* at one time, probably, inhabited it on account of the mines in the neighbourhood.—Respecting the first building of the Castle (it is before observed) no account is known.

It belonged to the *Peverals*, and was given by *Edward the Third* to his Son, *John Duke of Lancaster*. It was used for keeping the mine court records, till removed to *Tutbury*. It is built of the hardest free-stone, and must have occasioned great labour to bring the stone up such an eminence.

An entrenchment seems to have been made from the foot of the Castle-hill on one side, forming a semi-circle round the town to the foot of the hill

hill on the other side, the Castle having the command of the whole. It is now called the *Town Ditch*, and is only to be made out in particular situations.

Singular coins and curious implements have been found on the Castle-hill. The town is inhabited chiefly by miners, who in general are good members of society. The mines find employment for men, women, and children.

The Cave, so called probably from many holes in the Lime-stone stratum, which form small caverns, is very narrow at its entrance, which is betwixt two steep Lime-stone rocks; after proceeding a short distance the rocks are farther apart. In many places may be seen veins, where small quantities of Lead Ore have been found.

This place is considerably on the ascent, and from the singularity of the rocks on each side, and the richness of the soil formed by decomposition, is very productive of many novelties of botany, particularly a great variety of lichens, mosses, &c. About half a mile up this valley

valley is a stratum of Basalt, which appears at the surface, and an irregular formed Basalt column with crystallized Quartz, bearing the appearance of Chalcedony. There is a singular clay-like substance on the surface of the Basalt stratum, that appears very much like a scoria, or half-baked clay: this stratum is of considerable thickness, and has great inclination; the mountain opposite is Lime-stone. There are many varieties of Basalts in this neighbourhood, but the column before alluded to is in appearance, texture, and hardness, the same as those at the Giant's Causeway and Staffa, though not so regularly formed.

The Toad-stone stratum differs in general from this column, being seldom so hard or close in texture; but many of the substances called Toad-stones, and suggested by my friend, the late Mr. *Whiteburst*, to be from volcanic origin, are decomposed, and on the most minute examination are difficult to be accounted for: their varieties, and the different states they are in, sufficiently prove their affinity. To the east of *Castleton*, and on the road to *Bradwell*, (a small village,) are several mines worked for Calamine, which produce Blende and some Lead

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Ore;

Ore; the stratum is Lime-stone, and the veins, in many places appear at the surface. At *Pinder*, about half way betwixt *Castleton* and *Bradwell*, is a Lead mine of some consequence, a specie of decomposed (supposed) Toad-stone, volcanic production, is cut in abundance; and at a mine near this, called *Dirtlow*, the vein of Ore is in the before-mentioned stratum.

In the valley are several coagulations of small Lime-stone in masses, cemented together by Stalactite: the water, strongly impregnated with Carbonate of Lime, filtering through a mass of loose stone, has cemented them together, and forms something resembling the plum-pudding stones. The Shale in this part of the valley is generally the upper stratum; but as you proceed up the hill, the Lime-stone appears at the surface. Here are several kilns for burning Lime, and the cliffs where the Lime-stone is blasted for the purpose of getting stone to burn to Lime, are full of sparry veins and marine shells, and form what is called *Derbyshire* Marble, of which excellent Chimney-pieces are made; it is much harder, and takes a better polish, than the best Statuary.

In

In many parts of this valley, where two small hills are opposite each other, I found one hill composed of Toad-stone, and the other Lime-stone.

In the middle of this valley is a large white building, which is a cotton-mill, and worked by a water-wheel. On the left hand, the north side of the valley, are no mines, the stratum being Grit-stone and Shale. At the extremity of the valley is the village *Hope*, and a little further is *Brough*, where there is another cotton-mill.

Should the curiosity of the traveller lead him to see *Elden Hole*, distant about three miles, he may be accommodated with a guide to it.

The mountains to the north of *Castleton* afford but poor returns for cultivation, in proportion to the valley; their stratum is Grit stone and Shale: the Lime-stone stratum lays under them, but at such a depth that the veins of *Ore* in that situation cannot be worked; on this side there are not any mines. In this neighbourhood is a great variety of Grit, composed of large

Quartz Pebbles, some of which are crystallized, with veins of Fluor. Quarries are worked to obtain this Grit for building purposes ; there is also an Argillaceous Grit used for building, but subject to decompose. The Micaceous Grit splits in laminæ, has a good deal of elasticity, and is used for roofing houses. Sometimes Oxide of Iron is found with Argill in the Grit-stone, also Rotten-stone, a ferruginous substance.

The Shale or Shiver in this neighbourhood is of a dark brown colour, nearly black, and forms a thick stratum in many places. It is generally impregnated with Vitriol of Iron ; some of it is more saturated with Carbonic Acid ; in its stratum it is exceedingly hard, but soon decomposes when exposed to the air ; it varies much in its quality and texture, and frequently contains Petrol. This stratum abounds with Martial Pyrites, and in it are frequently veins of Calcareous Spar, Cawk, &c. which bear Lead Ore, though by no means so generally as the under-stratum Lime-stone.

It is necessary here to observe that each stratum is separated by a clay, sometimes a foot or more

more in thickness, and frequently layers of clay a few inches thick are found interjected in various situations in the Lime-stone stratum, which is stratified, the others are not.

The Lime-stone stratum differs much: there are many quarries for Lime-stone in a square mile, all of which differ in some degree in their quality; some are entirely composed of marine shells, &c. while others are exceeding hard, and contain but few: they make excellent lime, and the use of it has greatly increased the cultivation of the mountains.

In this stratum the greatest quantity of Lead Ore is found in veins, which generally intersect the stratum at right angles. These veins are composed of Calcareous Spar, Cawk, and Kevil, with Lead Ore; they commonly appear at the surface, and are followed by the miners, until they judge whether it will answer their purpose: if they find it rich, they take the range of the vein with the compass, which is almost always here nearly east and west. They then form their judgment which way will be the most judicious to work the mine to the greatest advantage.

They

They are subject to peculiar laws and customs, and have a *Bar-master, who is an excellent miner, in whom great trust is reposed, and whose duty it is to settle disputes, and distribute justice. When a vein is situated in a horizontal direction, which it often is, it is called a flat, or pipe work.

This stratum at various depths is commonly separated by what is called the Toad-stone, which always cuts off the vein of Ore. The Toad-stone is of various thickness; it ranges under the Lime-stone alternately in this neighbourhood. It is of various colours, from the Basalt dark-brown, to a light-coloured Ochre full of fine green spots. It does not effervesce with acids, has all the appearance of a scoria; its pores are frequently filled up with red earth, Chalcedony, Zeolite, and Calcareous Spar; and the clay that appears betwixt it and the Lime-stone has the appearance of a half-vitrified substance, brittle, full of holes, and of various colours. The thickness of this stratum varies much

* Mine-master.

much in the distance of a mile. On *Tideswell Moor*, where this stratum intersected the vein that was worked in the incumbent stratum Lime-stone, and cut it off, the practical miners knew that by cutting through the Toad-stone stratum they were sure to meet with the Lime-stone stratum underneath, and the vein of Ore they before had lost. One instance in *Black Hillock* mine is where they lost the vein of Ore by the Toad-stone cutting it off, they sunk in the Toad-stone 100 fathoms, and could not get thro' it, while the miners at a small distance on each side met with the Toad-stone and sunk through it, being only a few fathoms in thickness; which was one reason the ingenious Mr. *Whitehurst* thought it to be a lava, issuing from a crater, and injected betwixt the Lime-stone stratum, separating the whole by its expansive force, at the period of some violent convulsion, of which this neighbourhood shews so many strong appearances. The Toad-stone stratum contains no marine productions, no vegetable impressions, nor any thing that serves to prove it was formed at the same period, or by the same means the stratum below it and above it was formed. Its separating the veins of Ore and the stratum, are
strong

strong arguments to suppose a division has taken place in the Lime-stone stratum, independent of the entire difference of the component parts, and its singular various thickness.

In one mine on *Tideswell Moor*, and in *Dirtlow* mine, near *Castleton*, the Toad-stone is said to bear Lead Ore, and the vein is worked in that substance.—*Query*, if this substance is a Toad-stone, I found pieces in it to effervesce with acids, and burn to lime. The situation of the vein of Ore in *Dirtlow* mine I went down to see, and did not on examination find it resemble what Mr. *Whiteburst* calls the Toad-stone; but miners here generally call any substance they do not know by that name, which is the case in the above instance, it being of a singular colour, and appears in a decomposing state. The mine on *Tideswell Moor* I did not examine: Toad stone seldom forms fissures; after torrification, I found particles of it attracted by the magnet.

In the veins of Ore are generally found Calcareous Crystallizations, Blende, native Oxyde of Zink, Galena, Potter's Ore, (very poor in silver) attended sometimes with Manganese, Carbonate
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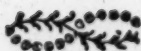
of Lead, and Molybdate of Lead, and a very great variety of Sulphates of Barytes, crystallized with native Sulphur, blistered, fibrous, compact, &c. &c. also Fluor in various states, and finely crystallized. Clays and calcareous Marls are found in various parts, the latter of which may be made useful for manuring land. Steatites are found sometimes in small quantities; a variety of Bitumens and Quartz Crystals, perfect Hexagonal Prisms, and double Pyramids are found imbedded in the Lime-stone detached.

The mountain on which the Blue Fluor is found, is very interesting to the naturalist: the mines in it are full of caverns; the walls throughout the country are full of fine petrefactions; the caverns contain fine Stalactites, Ochres, and varieties of Sulphuret of Iron: Argillaceous Iron Ores are found in the neighbourhood.

The strata published by *Brown and Co.* with the collection of substances, the produce of that county, classed and arranged according to their affinities, give a better description of the *Geology*, than any traveller can make on a pursuit like mine, and which are to be acquired at their
ware-

warehouse in *London* or at *Castleton*, or at their manufactory in *Derby*.

I meant to have given various sections of the *Arata* in *Derbyshire*, and the analysis of its productions throughout the mineral kingdom ; also a mineralogical map, laying down the situation of the mines ; but finding that work is already begun by a Gentleman more able to do it justice than myself, being more thoroughly conversant with the subject, I decline it, in hopes of being gratified by seeing such a publication soon brought forward.



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Deception Fruit

Beautiful Baskets of ditto

Candlesticks for Music, Card
Tables, Dining Tables,
Reading, Side-boards, &c.
&c. &c.

Essence Bottles

Grottos

Ladies' Work Weights

Fruit Bowls

Cups

Paper Weights

Elegant Fancy Devices

Marble Slabs

Handles for Bell Ropes, &c.
&c. &c.

A great variety of Toys, too numerous mention, new Articles being daily introduced.

They insure their Articles safe to any Part the kingdom, and ship their Goods to any part of the World.

MINERALS.

Mr. MAWE having formed Connections *Vienna, Peterburgh, Copenhagen, Lisbon*, and most every part of the world, AMATEURS may always depend on every new and rare Substance which he is determined to sell on the lowest terms peculiar to their house.—Being lately returned from a MINERALOGICAL TOUR through the Mines of this kingdom, *Scotland*, and a part of the *Islands*, it may be presumed, he has added many rare Varieties to his former extensive Collection. He has more than 20,000 Specimens always on sale, and a number for Chemical experiments.

Small Collections, consisting of 100 Varieties as low as Five Guineas; and 200 ditto, Ten Guineas.

COLLECTIONS, scientifically classed and arranged, at various prices.

GRAND COLLECTIONS, from a Hundred to a Thousand Guineas.

SECTION of the STRATA of *Derbyshire*, with interesting Descriptions.

☞ Shells and Minerals bought or exchanged

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